



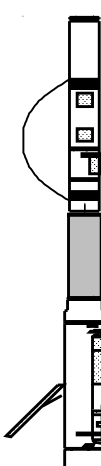

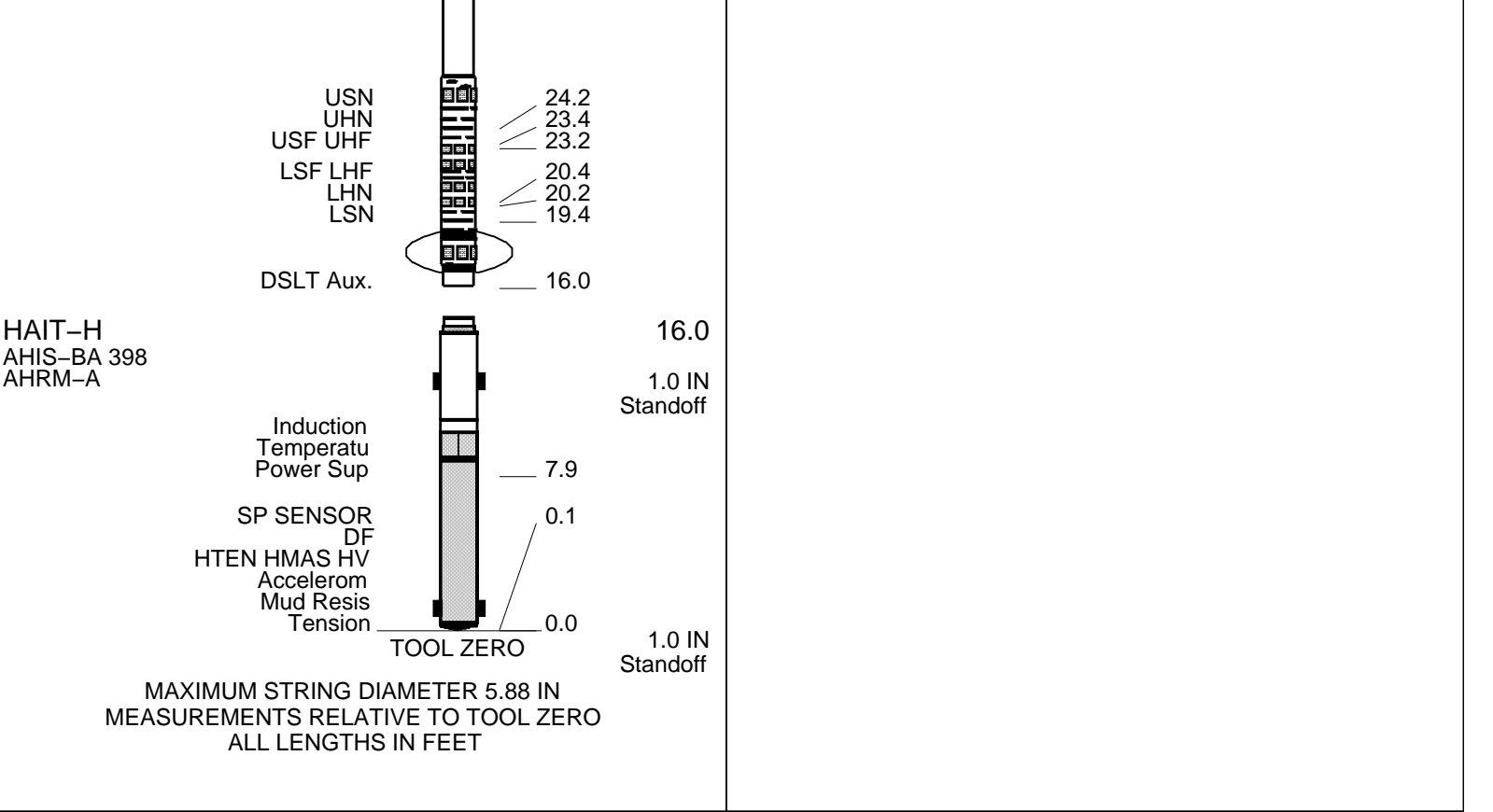


Sandstone (2.55g/cc) from 01 to 0200	

All tools run from TD to 3800'					
AIT and GR run to surface					
Bridged and logged out from 5435'					
Rig: Excel 3					
Crew: Dave Marquez, Cody Bruns, Elizabeth Wilson					
RUN 1			RUN 2		
SERVICE ORDER #:		CCN1-00030	SERVICE ORDER #:		
PROGRAM VERSION:		19C2-270	PROGRAM VERSION:		
FLUID LEVEL:		100 ft	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT					
GSR-U/Y NCT-B CNB-AB NCS-VB					
GSR-U 599 WITM (DTS)-A					
DOWNHOLE EQUIPMENT					
LEH-QT			75.9		
LEH-QT					
DTC-H	CTEM		72.1	73.0	
ECH-KC 9562	TelStatus		70.0		
DTCH0-A	ToolStatu				
HNGS-BA			67.7	70.0	
HNGS-BA 152	Upper_1		67.0		
HNSH-BA 149	Lower_2				
HNGC-B			60.0	61.8	
HNGH-A 87	HNGC Stat				
HNGC-B 250	HGNS HTEM		58.3		
	HMCA		57.5	58.3	
HILTB-FTB	HGNS Gamm		51.7		
HGNSD-B 1927			51.2		
HMCA					
HGNH 3878	HGNS Neut				
NLS-KL	HGNS Neut				
NSR-F 5069					
HACCZ 749	HGNS sens			48.9	
HCNT					
HGR					
HRCC-B 860					
HRMS-B 1716					
HRGD-B 1748	HRCC cart		44.9		
GLS-VJ 5094					
MCFL Device	MCFL		39.4		
HILT Nucl. LS	HILT cali		39.0		
HILT Nucl. SS	HRDD-LS				
HILT Nucl. BS	HRDD-SS				
BOW-SPR	HRDD-BS		38.6		
NPV-N					
DSLT-FTB				36.6	
DSLC-B					
ECH-KH					
SLS-W					



Company: Pronghorn Operating LLC Well: Hanavan 1

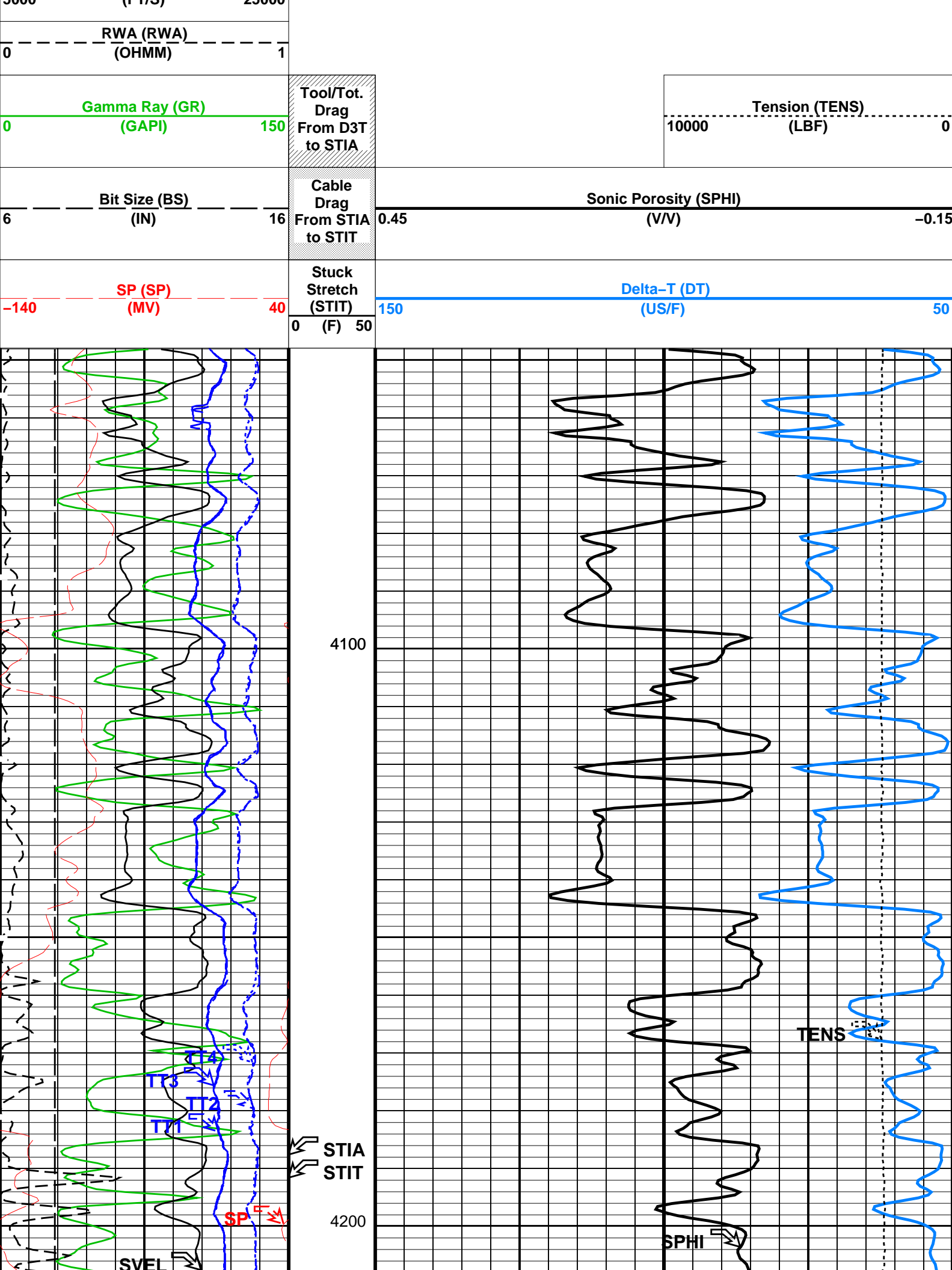
Output DLIS Files				
DEFAULT	AIT_SONIC_TLD_MCFL_030LUP	FN:28	PRODUCER	03-Nov-2013 19:21

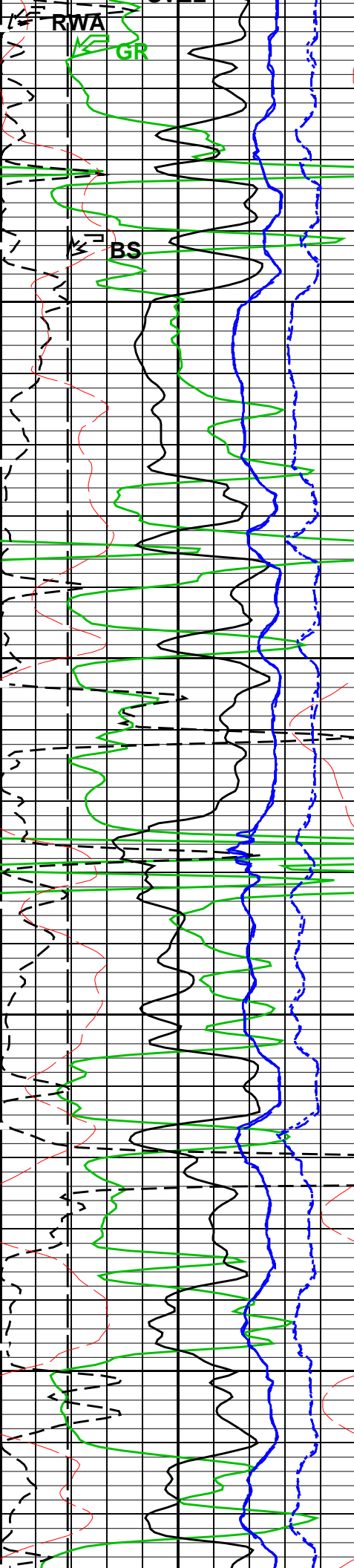
OP System Version: 19C2-270			
HAIT-H	19C2-270	DSLTL-FTB	19C2-270
HILTB-FTB	19C2-270	HNGC-B	19C2-270
HNGS-BA	19C2-270	DTC-H	19C2-270

Changed Parameter Summary				
DLIS Name	New Value		Previous Value	Depth & Time
DTM	47.6	US/F	47.6	US/F 5445.0 19:22:04
	56	US/F	47.6	US/F 5260.0 19:28:14
	47.6	US/F	56	US/F 5145.0 19:32:06
MAHTR	387		577	5412.1 19:23:09
	1243		387	5165.3 19:31:25
MNHTR	382		408	5410.5 19:23:12
	314		382	5409.7 19:23:14
	1243		314	5164.1 19:31:27

PIP SUMMARY

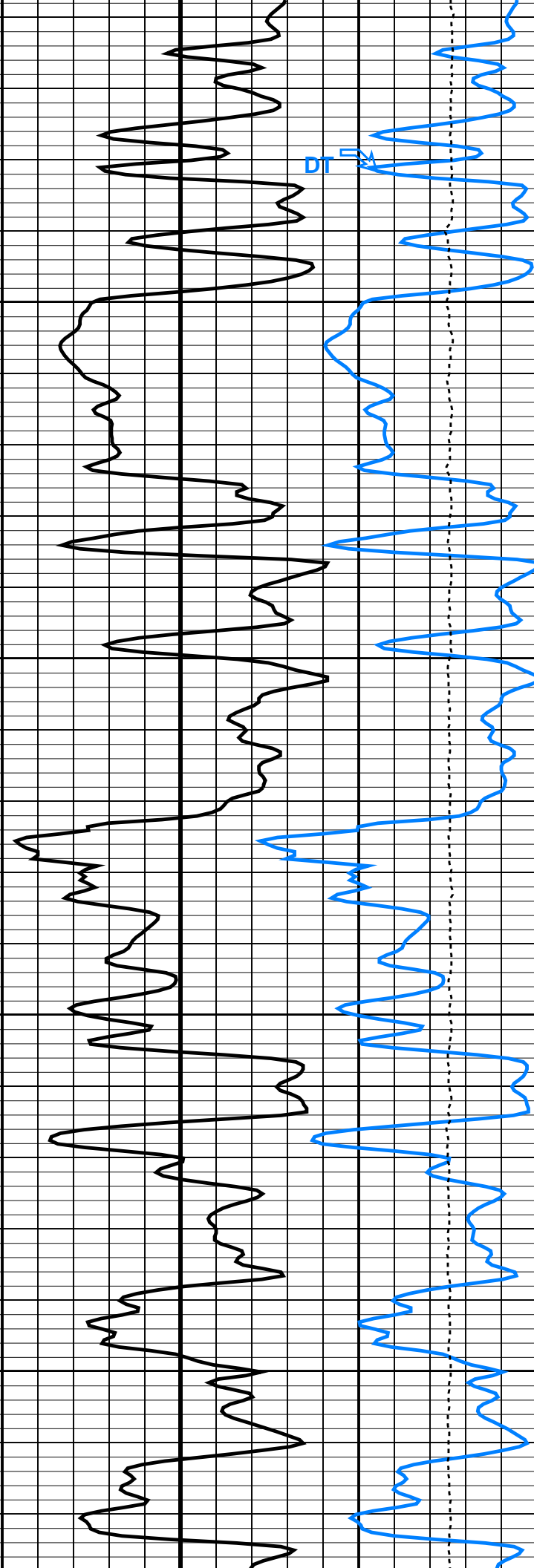
Time Mark Every 60 S		
Transit Time 4 (TT4)		
1200	(US)	200
Transit Time 3 (TT3)		
1200	(US)	200
Transit Time 2 (TT2)		
1200	(US)	200
Transit Time 1 (TT1)		
1200	(US)	200
Sonic Velocity (SVEL)		
5000	(FT/S)	25000

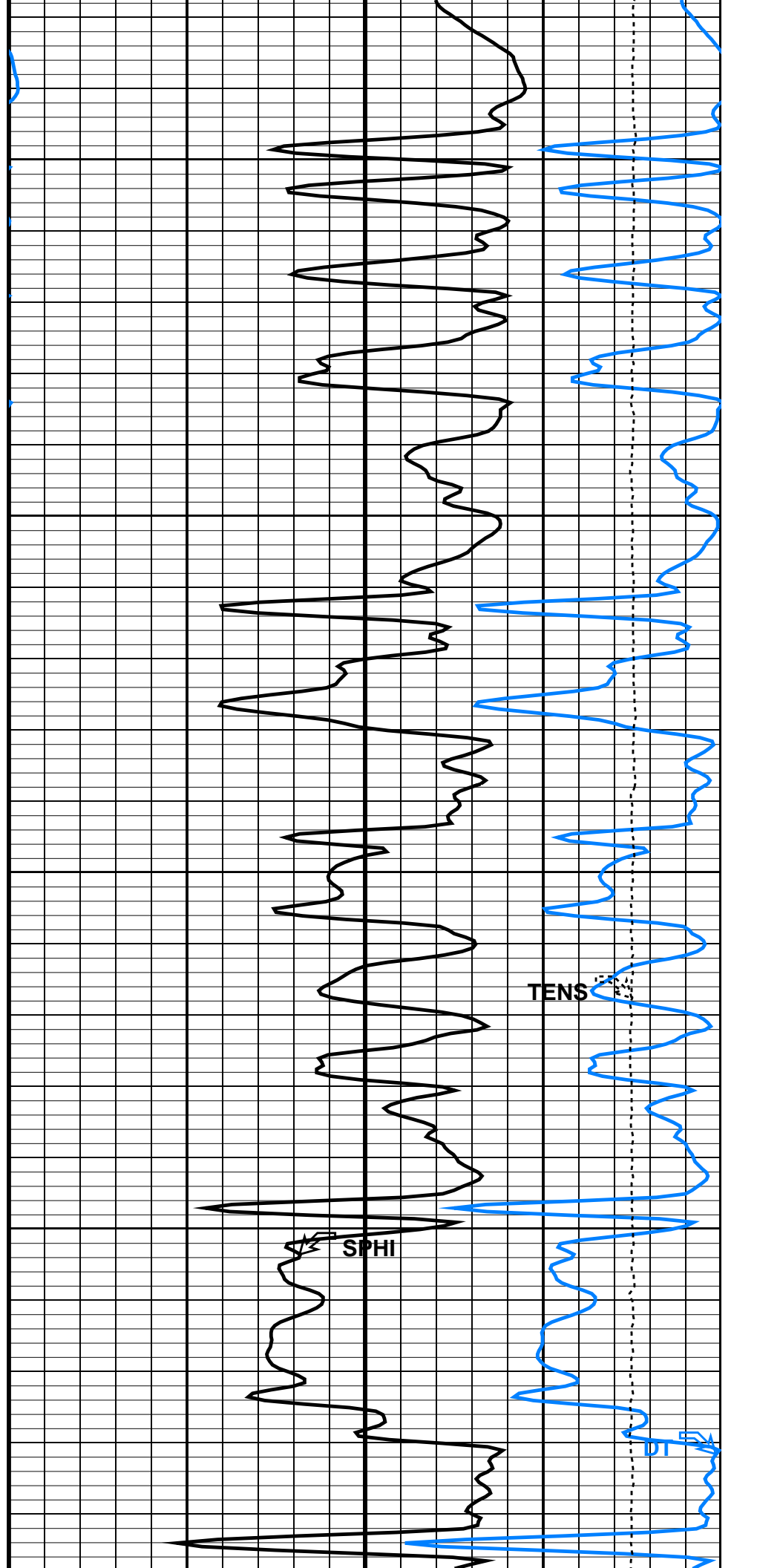
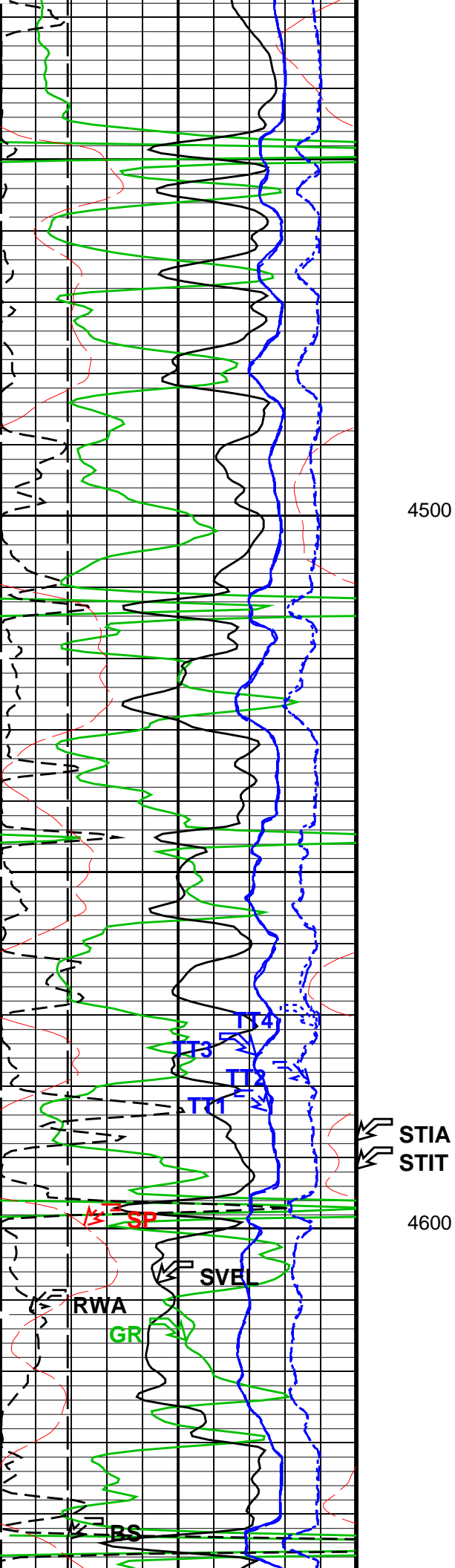


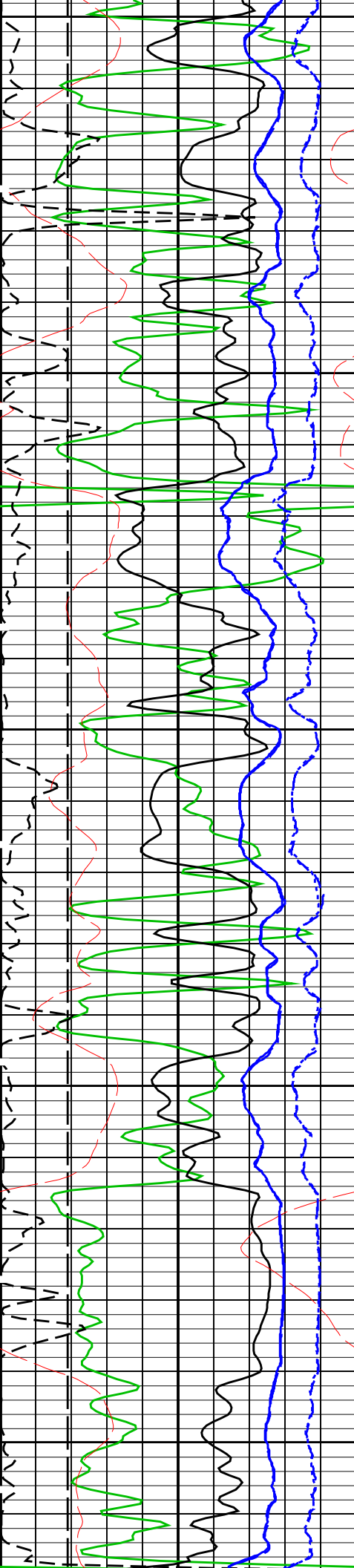


4300

4400

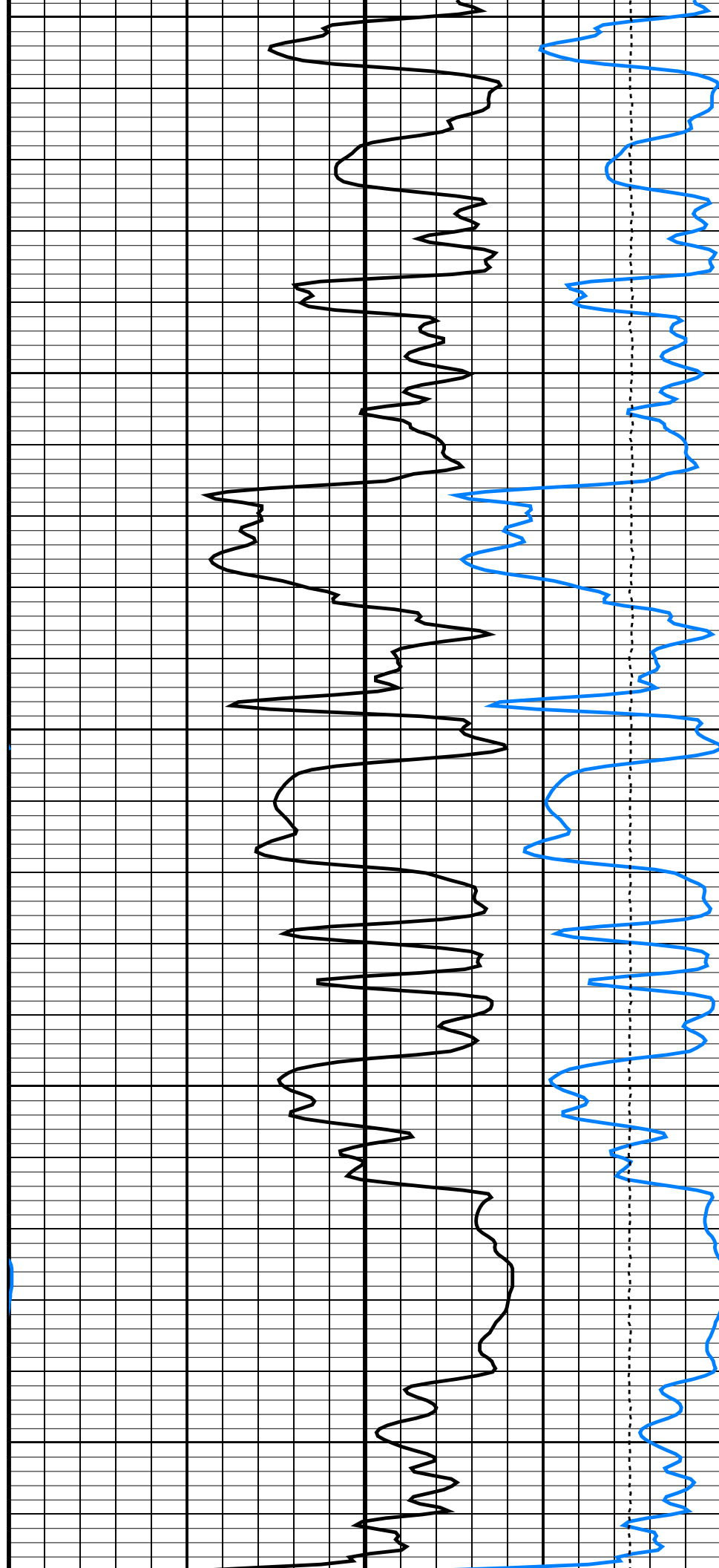


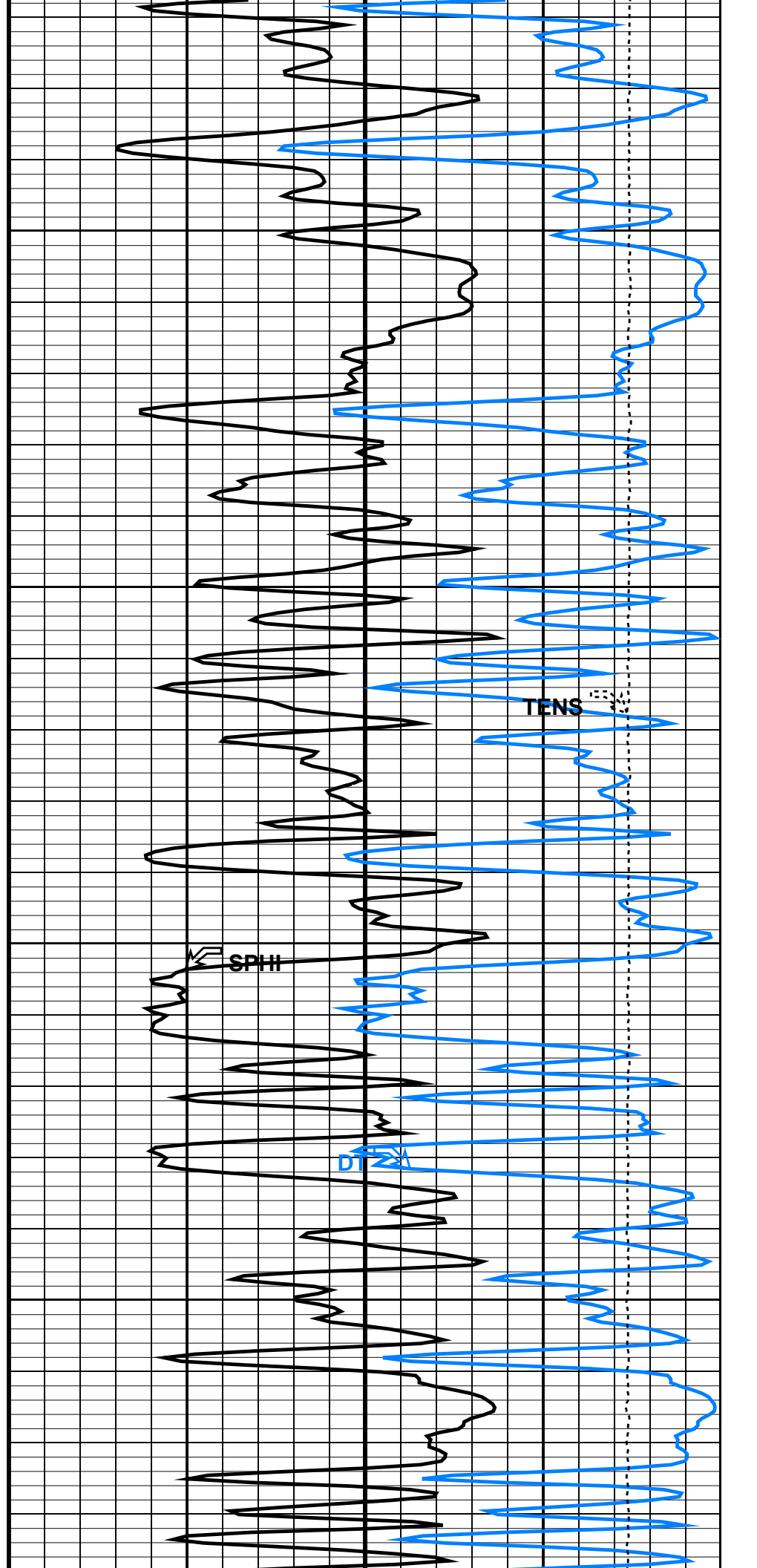
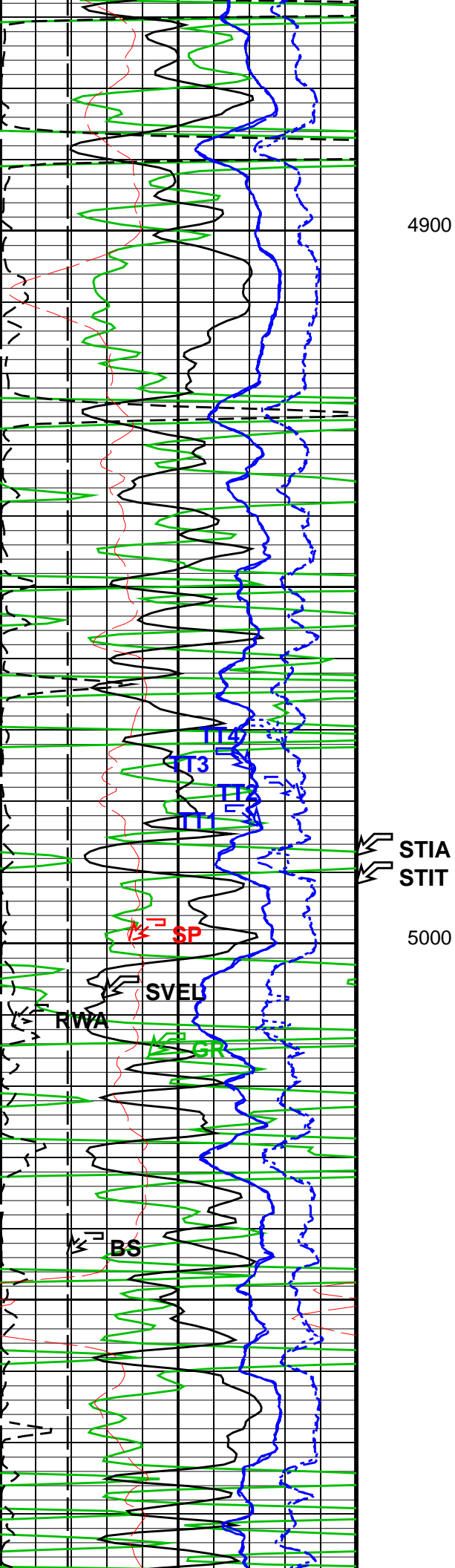


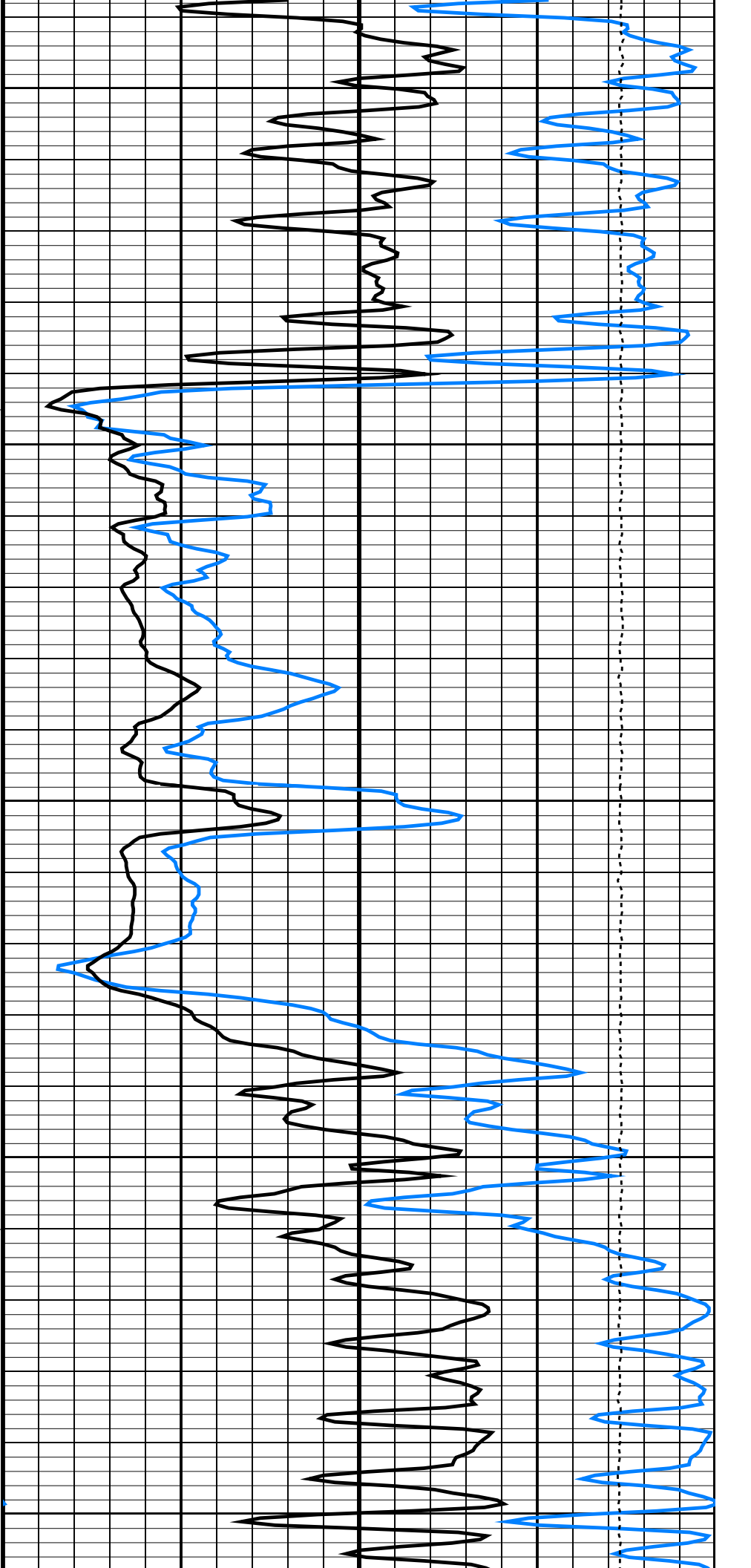
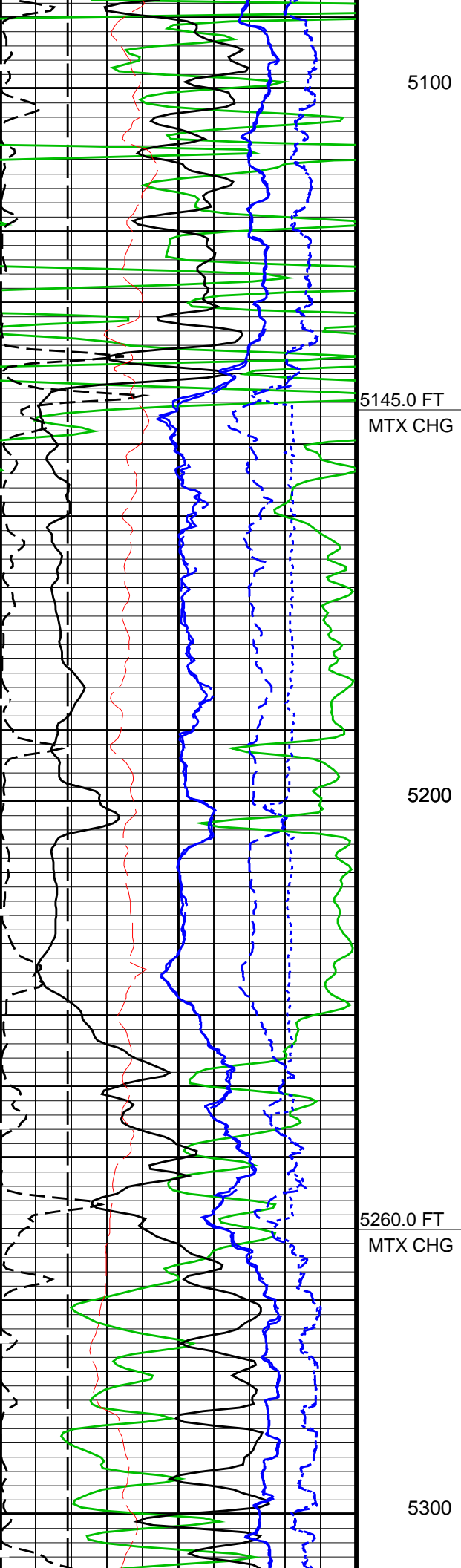


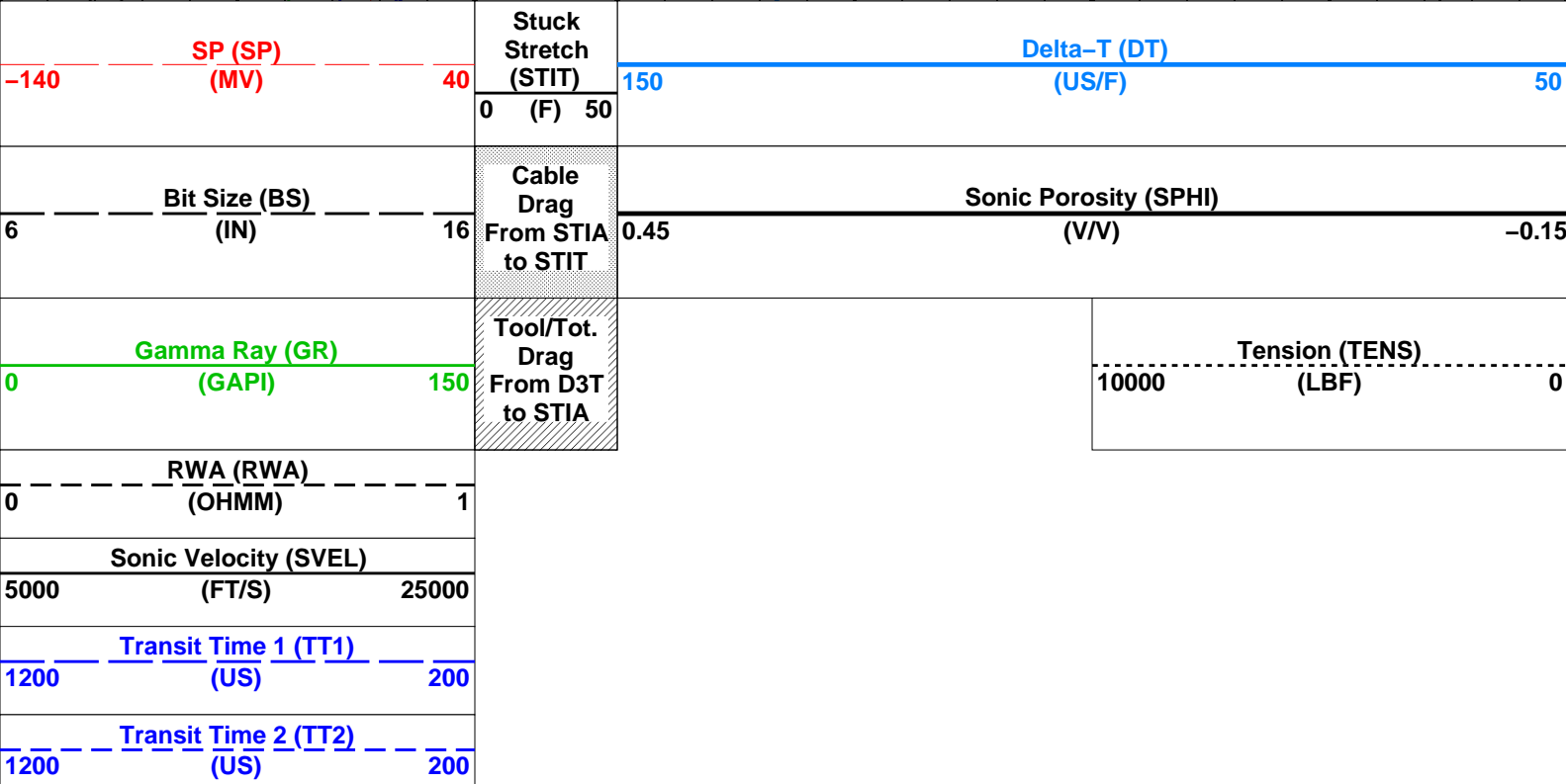
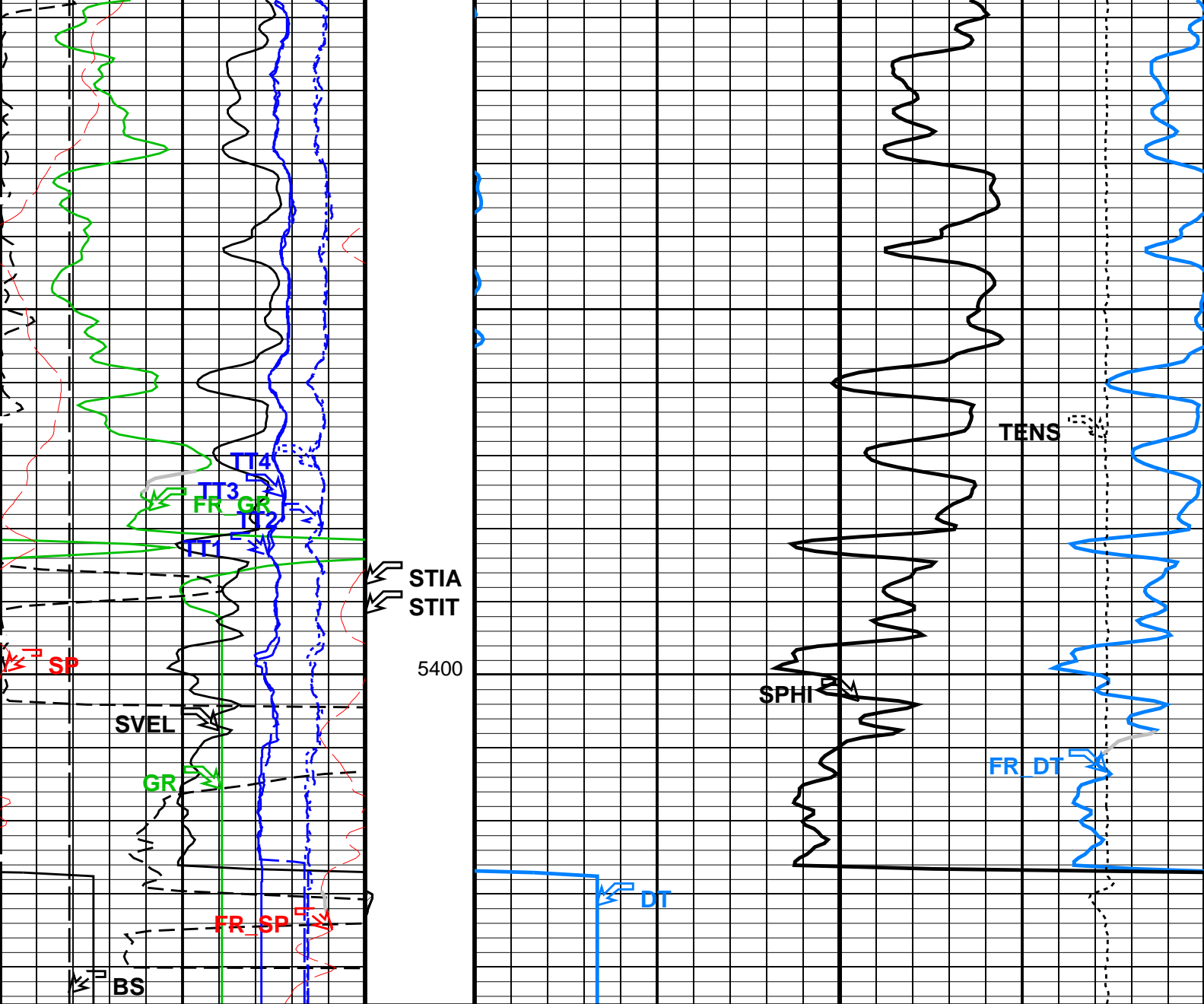
4700

4800









Transit Time 3 (TT3)		
1200	(US)	200
Transit Time 4 (TT4)		
1200	(US)	200

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HAIT-H: Array Induction Tool – H			
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
RTCO	RTCO – Rt Invasion Correction	YES	
SPNV	SP Next Value	0	MV
DSLTLT-FTB: Digitizing Sonic Logging Tool			
	Telemetry Mode	DSLTLT_FTBLT	
	DSLTLT Firing Mode	BHC	
AMSG	Auxiliary Minimum Sliding Gate	140	US
CBAF	CBL Adjustment Factor	1	
CBLG	CBL Gate Width	45	US
CDTS	C-Delta-T Shale	100	US/F
DDEL	Digitizing Delay	0	US
DIVL	DSLTLT Depth Sampling Interval	20	
DRCS	DSLTLT DLIS Recording Size	120	
DSIN	Digitizing Sample Interval	10	
DTF	Delta-T Fluid	189	US/F
DTFS	DSLTLT Telemetry Frame Size	276	
DTM	Delta-T Matrix	47.6	US/F
DWCO	Digitizing Word Count	120	
GAI	Manual Gain	40	
MAHTR	Manual High Threshold Reference	577	
MGAI	Maximum Gain	60	
MNHTR	Minimum High Threshold Reference	408	
NMSG	Near Minimum Sliding Gate	140	US
NMXG	Near Maximum Sliding Gate	840	US
RATE	Firing Rate	R15	
SFAF	Sonic Formation Attenuation Factor	2	DB/F
SGCL	Sliding Gate Closing Delta-T	100	US/F
SGDT	Sliding Gate Delta-T	60	US/F
SGW	Sliding Gate Width	100	US
SLEV	Signal Level for AGC	5000	
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DT	
WAGC	Waveform AGC Allow/Disallow	OFF	
WMOD	Waveform Firing Mode	FULL	
HILTLT-FTB: High resolution Integrated Logging Tool-DTS			
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
RWA: Apparent Water Resistivity			
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
RTCO	RTCO – Rt Invasion Correction	YES	
FEQL: Formation Evaluation Quick Look			
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
PERT: Preliminary Evaluation – Real Time			
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
RTCO	RTCO – Rt Invasion Correction	YES	
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth – Driller	5504.00	FT
TDL	Total Depth – Logger	5435.00	FT
System and Miscellaneous			
BS	Bit Size	7.875	IN
DORL	Depth Offset for Repeat Analysis	0.0	FT
MST	Mud Sample Temperature	75.00	DEGF
RMFS	Resistivity of Mud Filtrate Sample	1.2000	OHMM

RW TWS	Resistivity of Connate Water Temperature of Connate Water Sample		1.0000 100.00	OHMM DEGF
Format: SONI		Vertical Scale: 5" per 100'	Graphics File Created: 03-Nov-2013 19:21	
OP System Version: 19C2-270				
HAIT-H	19C2-270	DSLT-FTB	19C2-270	
HILTB-FTB	19C2-270	HNGC-B	19C2-270	
HNGS-BA	19C2-270	DTC-H	19C2-270	
Output DLIS Files				
DEFAULT	AIT_SONIC_TLD_MCFL_030LUP	FN:28	PRODUCER	03-Nov-2013 19:21
Company: Pronghorn Operating LLC				
Schlumberger				
Well:	Hanavan 1			
Field:	Smoky Creek			
County:	Cheyenne			
State:	Colorado			
BHC Sonic				